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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,102	08/27/1999	TOSHIHIRO SHIMA	04783/008001	8708
22511 7590 04/08/2004 OSHA NOVAK & MAY L.L.P. 1221 MCKINNEY STREET HOUSTON, TX 77010			EXAMINER PARK, CHAN S	
			ART UNIT 2622	PAPER NUMBER 15
DATE MAILED: 04/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/385,102

Applicant(s)

SHIMA, TOSHIHIRO

Examiner

CHAN S PARK

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 8-14 and 18-20 is/are rejected.
7) ☒ Claim(s) 5-7, 11 and 15-17 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 1/20/04, and has been entered and made of record. Currently, **claims 1-20** are pending.

Response to Arguments

2. Applicant's arguments, see pages 20-23, filed 1/20/04, with respect to the rejection(s) of claim(s) 1-24 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ueda U.S. Patent No. 6,538,764.

However, claims 5-7 and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Drawings

3. The corrected or substitute drawings were received on 1/20/04. These drawings are acceptable.

Specification

4. The corrected or substitute specification was received on 1/20/04 and it is acceptable.

Claim Objections

5. Claim 11 is objected to because of the following informalities: perhaps "elative time" should be replaced by "relative time". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8-14, and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda U.S. Patent No. 6,538,764.

6. With respect to claim 1, Ueda discloses a printer controller (controller 2000 in fig. 1) comprising:

Communication control means (CPU 12) for receiving packet data from host computers and extracting print job data (intermediate codes) on the basis of the received packet data (col. 25, lines 10-16);

Language control means (CPU 12) for generating image data on the basis of said print job data (col. 25, lines 25-32);

Print control means (CPU 12 in conjunction with printing section 17) for controlling a print engine (col. 21, lines 52-56);

Execution means (CPU 12) for exclusively executing either said communication control means, said language control means, or said print control means according to priorities assigned to each of these means (col. 25; lines 10-32); and

Alternation means (CPU 12) for altering, on the basis of specific events (insufficiency of the intermediate code memory 501), the relative priority sequence based on the priority between said communication control means and said language control means (col. 25, lines 10-32 & col. 31, lines 52-65).

It should be noted that the CPU 12 controls the communication means and conversion means for converting the print data into image data (dot data) based the size of the remaining intermediate code memory. When a *sufficient* amount of memory is available, the CPU 12 gives the priority to the communication control means and performs the printing process in a following order: communication control means → language control means → print control means (col. 31, lines 52-65). However, when an insufficiency of the memory size is detected, instead of the communication control means, the priority is given to the language control means to free up the memory space (language control means → communication control means → language control means → print control means). Thus, altering the relative priority sequence between the communication control means and the language control means is inherently performed based on this specific event of memory capacity.

7. With respect to claim 2, Ueda discloses the printer controller according to claim 1, further comprising:

A first memory (intermediate code memory) for storing the packet data received by said communication control means; and

First monitoring means (CPU 12 in col. 25, lines 16-18) for generating said specific events on the basis of the amount of packet data stored in said first memory (step 4 in fig. 5).

8. With respect to claim 3, Ueda discloses the printer controller according to claim 2, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said first monitoring means decides that the amount of packet data stored in said first memory is below a specific value (selecting "Y" at step 4 in fig. 5). Note that the conversion is performed first when the memory is full.

9. With respect to claim 4, Ueda discloses the printer controller according to claim 2, wherein said alteration means raises the priority of said communication control means higher than the priority of said language control means when said first monitoring means decides that the amount of packet data stored in said first memory is over a specific value (selecting "N" at step 4 in fig. 5). Note that receiving of print data from the host PC is performed first when the memory is not full.

10. With respect to claims 8 and 9, due to the similarities of these claims to claim 1, these claims are rejected as the reasons applied to claim 1.

11. With respect to claim 10, Ueda discloses a printer comprising:

A controller (controller 2000);

A print engine for printing on a print recording medium (col. 31, line 59); and

A communication interface connected to a network such that communication with host computer is possible (col. 26, lines 53-57).

With respect to rest of the claim, arguments analogous to those presented for claim 1, are applicable.

12. With respect to claim 11, as noted above in claim 1, Ueda a printer controller (controller 2000 in fig. 1) comprising:

Communication control means (CPU 12) for receiving packet data from host computers and extracting print job data (intermediate codes) on the basis of the received packet data (col. 25, lines 10-16);

Language control means (CPU 12) for generating image data on the basis of said print job data (col. 25, lines 25-32);

Print control means (CPU 12 in conjunction with printing section 17) for controlling a print engine (col. 21, lines 52-56);

Execution means (CPU 12) for exclusively executing either said communication control means, said language control means, or said print control means according to priorities assigned to each of these means (col. 25, lines 10-32); and

Alteration means for altering, on the basis of specific events, the relative time proportions between the execution time in which said execution means is to execute said communication control means and the execution time in which said execution means is to execute said language control means (col. 25, lines 10-32).

Again, when CPU 12 detects an insufficiency of the memory, it alters the priority between the communication control means and the language control means (language control means → communication control means → language control means → print control means). Since the language control means is performed first instead of the communication control means due to the insufficiency of the memory size (specific event), the schedule *time* for the communication control means to be performed is inherently altered so that the language control means is performed first.

13. With respect to claim 12, Ueda discloses the printer controller according to claim 11, further comprising:

A first memory (intermediate code memory) for storing the packet data received by said communication control means; and

First monitoring means (CPU 12 in col. 25, lines 16-18) for generating said specific events on the basis of the amount of packet data stored in said first memory (step 4 in fig. 5).

14. With respect to claim 13, Ueda discloses the printer controller according to claim 12, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said first monitoring means decides that the amount of packet data stored in said first memory is below a specific value (selecting "Y" at step 4 in fig. 5). Note that the conversion is performed first when the memory is full.

15. With respect to claim 14, Ueda discloses the printer controller according to claim 12, wherein said alteration means raises the priority of said communication control

means higher than the priority of said language control means when said first monitoring means decides that the amount of packet data stored in said first memory is over a specific value (selecting "N" at step 4 in fig. 5). Note that receiving of print data from the host PC is performed first when the memory is not full.

16. With respect to claims 18-20, due to the similarities of these claims to those of claims 10 and 11, these claims are rejected as the reasons applied to claims 10 and 11.

Allowable Subject Matter

17. Claims 5-7 and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,481,656 to Wakabayashi et al. teaches the method of altering the communication task and the language task based on the available memory space (col. 14, lines 10-23).


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S PARK whose telephone number is (703) 305-2448. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csp
April 1, 2004

Chan S. Park
Examiner
Art Unit 2622


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SUPERVISORY PATENT EXAMINER
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